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ABSTRACT

The Minnesota Multiphasic Personality Inventory (MMPI) and the Rorschach test are frequently used in juvenile justice settings to assess current psychological functioning and to predict future behavior. The Exner Comprehensive System, which standardized the Rorschach, made possible a comparison of the Rorschach and the MMPI in an investigation of their relative efficacy in discriminating between violent and nonviolent juvenile offenders. Youth (N=39), referred to a metropolitan juvenile probation department and charged with serious person or property offenses, completed a test battery which included the MMPI and the Rorschach. Few significant differences emerged between violent and nonviolent juvenile offenders on the MMPI and the Rorschach, indicating that both instruments were largely unsuccessful in discriminating between violent and nonviolent juvenile offenders. However, the two measures provided similar data on the nature and degree of psychopathology present in the sample despite their vast divergence in psychometric approaches. The test data imply that the nature and degree of psychopathology present in violent and nonviolent juvenile offenders are similar (Author/NRB)

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Clinical Assessment of Psychopathology in Violent and Nonviolent Juvenile Offenders*

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Clinical Assessment of Psychopathology in Violent and Nonviolent Juvenile Offenders

This study was designed to assess the relative efficacy of the MMPI and the Rorschach in discriminating between violent and nonviolent juvenile offenders. Both tests are used routinely in the psychological evaluation of juvenile offenders since it is generally believed that they distinguish violent from nonviolent youths. Use of these assessment tools is based on the assumption that the personality functioning of violent persons is different from that of nonviolent persons. Although some investigators contend that violent behavior is more a function of the environment than the individual (e.g. Goldstein, 1976), the widespread employment of person-oriented assessment tools continues. This study addresses the following questions: Do the MMPI and the Rorschach discriminate between violent and nonviolent juvenile offenders? If the two measures differ, which is more effective in distinguishing violent from nonviolent juvenile offenders?

The MMPI and the Rorschach represent perhaps the widest possible divergence in psychometric approaches to personality assessment. The MMPI is the prototype of the structured, objective, nomothetic approach, whereas the Rorschach is the prototype of the unstructured, subjective, idiographic approach. While both are personality tests, they differ in basic structure, types of responses elicited, and manner of interpretation. Proponents of the above measures view these differences as unique aspects and their most significant features.

Both the MMPI and the Rorschach are employed extensively in juvenile justice settings to assess current psychological functioning and to predict future behavior. Psychologists are often requested to explain the offense

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behavior of these juveniles and to offer predictions of whether these juveniles will exhibit antisocial behavior or violent behavior in the future. To date, there has been no conclusive demonstration that either the MMPI or the Rorschach is capable of producing data which provide definitive responses to such questions.

Few empirical Rorschach studies have been conducted in which violent and nonviolent offenders have been compared as such. An even smaller number of studies has looked at violent and nonviolent juvenile offenders. From this research, three scoring indices have shown promise for differentiating these groups: Color (C), Human Movement (M), and Human Content(H + Hd). Violent juveniles give more Color responses (Megargee, 1966; Offer, Marohn & Ostrov, 1979; Townsend, 1968), fewer Human Movement responses (Megargee, 1966) and fewer Human Content responses (Townsend, 1968) than nonviolent juveniles, suggesting that violent juveniles have an impulsive behavioral style, concrete thinking and limited social contacts. Such responses could be interpreted as indicators of psychopathology. Research with juvenile offenders using the Exner Comprehensive System of the Rorschach is almost nonexistent, and the little research that has been done has been solely descriptive in nature (Exner, Bryant & Miller, Note 1; Solway, Richardson, Elion & Hays, 1981).

In contrast to the Rorschach, the MMPI has generated a relatively large body of research on offenders, some of which has focused on the discrimination of violent from nonviolent offenders. A few of these studies have looked at juveniles. Four standard scales have shown some promise in distinguishing violent from nonviolent youths: Infrequency (F), Psychopathic Deviance (Pd), Schizophrenia (Sc), and Mania (Ma). In early MMPI research, three of these scales, Pd, Sc and Ma, were labeled "excitatory

of delinquency" because of their strong association with delinquent behavior (Hathaway & Monachesi, 1953). Studies with juvenile offenders have found that violent juveniles obtained higher scores on the F (Shinohara & Jenkins, 1967; Tsubouchi & Jenkins, 1969) and Sc (McGrath, 1968; Shinohara & Jenkins, 1967) scales than nonviolent juveniles. Elevation in the Pd scale has been noted among violent juvenile offenders (Lothstein & Jones, 1978; Spellacy, 1977), though the success of the Pd scale in discriminating between violent and nonviolent juvenile offenders has been mixed. Similarly, the Ma scale has been observed to be elevated among violent juveniles, yet its success in discriminating between violent and nonviolent juveniles has been limited (Spellacy, 1977). If the F, Pd, Sc and Ma scales do distinguish between violent and nonviolent juvenile offenders, then violent juveniles would be expected to be more antisocial, more defensive, more interpersonally isolated and more energetic than nonviolent juveniles. Such findings could be construed as evidence of more severe psychopathology in violent than nonviolent juvenile offenders.

No research has been conducted which investigates the relative efficacy of the MMPI and the Rorschach. Probably the single greatest obstacle to undertaking such research has been the lack of standardization of the Rorschach. There are five major Rorschach systems in the United States. While they share some common elements, they differ sufficiently on several basic aspects; consequently, their elements are not interchangeable. The recently developed Exner Comprehensive System, which aims to increase the objectivity and reliability of the Rorschach, attempts to provide a single methodology (Exner, 1974). This system has uniform administration and scoring procedures and a systematic method for interpreting test results. Moreover, the compilation of norms for various criterion groups permits the comparison of individual test data with those of appropriate groups.

The Exner Comprehensive System, then, standardizes the Rorschach and thereby facilitates the comparison of the Rorschach with other personality measures.

Method

Subjects

Subjects for this study were youths referred to a metropolitan juvenile probation department. Selection requirements included referral for a psychological evaluation, the ability to complete the primary psychological measures in this study (the WISC-R, MMPI and Rorschach) and a willingness to participate. Only youths charged with serious person or property offenses were included.

Procedure

As soon as possible after their apprehension, subjects were interviewed by an advanced psychology graduate student who also administered the test battery. Basic sociodemographic data were collected and several psychological tests, including the Group Form of the MMPI, the Exner Comprehensive System of the Rorschach, and the WISC-R, were given. The evaluations were conducted by the female graduate student examiners in private offices located in the county juvenile detention facility or in an adjacent office building. The MMPI protocols were scored manually and the data recorded on standardized profile sheets. Rorschach records were scored blind by two clinical psychologists trained by Exner in the Comprehensive System.

Results

The sample consisted of 39 subjects, 30 males and 9 females. They had an average age of 15 years. Sixteen were Caucasian, 15 were Black, and 8 were Spanish-American. These juveniles' families, which were often broken by death or divorce of the parents, were mostly of lower socioeconomic status.

The supporting parent or guardian was typically employed in skilled or semiskilled labor. The offenses for which these subjects were referred included murder, rape, robbery, arson, and sexual abuse of a child. Most had had one or more previous arrests, with an average of four, though few had been incarcerated.

Analysis I

Data were first analyzed for the entire sample. The mean intellectual level, using subjects' WISC-R Full Scale IQ scores as a criterion, was in the Low Average range (*M*=84, *SD*=14). Only four subjects were classified as Mentally Deficient; that is, their full Scale IQ scores were below 70. On the MMPI, males and females were grouped separately because the norms for the test differ by sex. MMPI records were scored for all the standard scales (four validity scales and ten clinical scales) using the K correction. Three scales, *F*, *Pd*, and *Sc*, had mean scores above 70 for males, while only one scale, *Sc*, had a mean T score above 70 for females (see Table 1). The most frequent single peak scales for both males and females were *Sc* and *Pd*. On the Rorschach, mean scores for the entire sample were computed on all scoring indices included in the structural summary of the Exner Comprehensive System. These mean scores were then compared with those of Exner's normative group of nonpatient youths of the same age. The average Rorschach record, compared with that of the normative group, was shorter, and the frequency of form determined responses was higher, with correspondingly lower frequencies of other determinants (see Table 2). Additionally, frequencies of Detail (*D*), Pair (*[2]*), Form Dimension (*FD*), and Blend responses and the Affective Ratio (*Afr*), and *F+%* and *X+%* were lower.

Table 1

MMPI Mean Scale Scores for Male and Female Subjects

MMPI Scale	Males (n=30)			Females (n=9)		
	M	SD	Range	M	SD	Range
L	53.33	10.45	36-80	53.33	8.23	43-66
F	72.20	15.40	48-110	68.78	7.14	58-80
K	51.27	7.69	33-64	54.22	8.97	44-70
Hs	61.77	11.72	44-85	59.33	8.60	48-74
D	64.77	9.84	46-82	60.78	10.01	46-78
Hy	60.20	10.27	40-80	55.89	9.91	43-72
Pd	74.57	12.06	53-104	69.44	11.89	50-90
Mf	54.80	7.21	43-73	61.00	10.84	43-76
Pa	65.17	13.89	44-105	66.89	8.43	59-85
Pt	64.37	12.70	38-87	61.56	8.83	50-74
Sc	75.30	16.74	44-107	71.78	12.33	55-94
Ma	64.83	12.73	40-88	65.56	15.37	45-91
Si	56.07	8.60	42-82	57.22	5.74	46-64

Table 2

Mean Scores on the Exner Comprehensive System of the Rorschach for Nonpatient Youths and Study Subjects

Scoring Index	Study Subjects (n=39)			Nonviolent Youths (n=100) [a]	
	M	SD	Range	M	SD
R	16.00	6.90	7-42	21.40	5.20
Location					
W	6.82	4.24	1-18	8.40	3.10
D	7.41	5.90	1-33	11.70	3.20
Dd	1.77	2.26	0-11	1.30	.80
S	1.18	1.25	0-4	.50	.30
Determinants					
M	1.36	1.33	0-6	2.60	1.10
FM + m	2.41	2.15	0-9	3.30	1.30
FC	.95	1.10	0-4	2.10	.80
CF + C + Cn	.69	.89	0-3	2.10	.90
Weighted Sum C	1.31	1.32	0-4	3.10	1.20
Sum C'	.38	.67	0-3	.40	.20
Sum T	.13	.41	0-2	.90	.50
Sum Y	.15	.37	0-1	.20	.10
Sum V	.05	.22	0-1	.40	.20
Sum all Shading	.77	1.09	0-5	1.90	.80
FD	.28	.51	0-2	1.10	.60
Fr + rF	.10	.31	0-1	.40	.20
(2)	4.15	3.39	0-13	8.20	2.10
F	10.49	6.01	3-35	9.70	2.60
Ratios and Derivations					
P	3.97	1.83	1-8	6.70	1.10
Lambda	2.02	2.12	0-9.5	.83	.08
X + %	.65	.15	.30-.92	.80	.08
F + %	.62	.19	.20-1.0	.83	.11
A%	.58	.22	.06-1.0	.43	.08
Afr	.49	.19	.20-1.2	.79	.17
3r + (2)/R	.35	.21	0-.78	.44	.08
H + Hd	3.15	2.60	0-1	4.60	1.30
Zf	8.38	4.58	2-18	11.10	2.60
Blends	1.00	1.03	0-3	3.70	1.20

[a]Normative group for the Exner Comprehensive System of the Rorschach.

Analysis II

For the remaining analyses, the sample was grouped by offense type, violent (n=26) and nonviolent (n=13), using the FBI classification index of violent crimes. According to this index, the following offenses are violent crimes: murder and nonnegligent homicide, aggravated assault, forcible rape and robbery.

The offense groups were first compared on sociodemographic and other background characteristics using two tail t tests. These analyses disclosed that violent subjects were significantly older, more often members of ethnic minority groups, and had a larger number of prior arrests. In addition, violent subjects obtained significantly lower WISC-R Full Scale IQ scores than nonviolent subjects, though the mean Full Scale IQ scores of both groups fell in the Low Average range of intellectual functioning.

Frequency score distributions were computed on selected scales of the MMPI and on scoring indices included in the structural summary of the Exner Comprehensive System of the Rorschach for both offense groups. On the MMPI, frequency score distributions were performed on the F, Pd, Sc and Ma scales since these scales had been identified by prior research as evidencing the highest elevations on profiles of violent juvenile offenders and showing the most promise in distinguishing between violent and nonviolent juveniles. However, few Rorschach studies of juvenile offenders have employed the Exner Comprehensive System, and none has identified scoring patterns that characterize violent juvenile offenders and distinguish them from nonviolent juvenile offenders. Therefore, frequency score distributions for all 29 scorings in the structural summary were computed. Six indices--Sum of Texture (T), Sum of Vista (V), Sum of Diffuse Shading (Y), Sum of Achromatic

Color (C'), Reflections (Fr + rF) and Form Dimensions (FD)--were omitted from further analyses because less than a third of the subjects received scores on them, leaving 23 scoring indices. Examination of the frequency score distributions on the MMPI and the Rorschach scorings revealed the frequencies and ranges of subjects' scores and permitted an assessment of the percentage of subjects scoring in the deviant range on each scoring.

On the MMPI, a T score of 70 was used, according to convention, as a cutoff between normal and deviant scores. Scores equal to or greater than a T score of 70 were considered accurately identified because evidence of psychopathology was expected in this sample. Correspondingly, scores below a T score of 70 were treated as inaccurately identified or missed. The F scale did not correctly identify a majority of subjects in either offense group. The Pd and Sc scales identified 50% or more of the male and female subjects in both groups (see Table 3). The Ma scale alone discriminated between violent and nonviolent subjects, correctly identifying half of the female subjects only.

On the Rorschach, mean scores of the normative group were used as cutoffs between normal and deviant scores since this distinction is employed by Exner. Subjects with scores equal to or greater than the mean scores of the normative group were considered accurately identified because evidence of psychopathology was expected, and those with scores below the mean scores were treated as incorrectly identified or missed. White Space (S), Lambda, and Animal Content (A%) identified a majority of subjects in both offense groups, while Rare Detail (Dd) identified over 50% of the violent subjects and the Egocentricity Index (3r + [2]/R), a scoring developed by Exner which measures selfcenteredness, identified over 50% of the nonviolent subjects only (see

Table 3

Percentage Distributions of T-Scores with K Correction on Selected MMPI Standard Scales for Male and Female Offense Groups

Scale/T-Score	Groups			
	Violent Youths		Nonviolent Youths	
	Male (n=19) %	Female (n=7) %	Male (n=11) %	Female (n=2) %
F				
≥70	47	43	45	0
<70	53	57	55	100
Pd				
≥70	63	57	73	50
<70	37	43	27	50
Sc				
≥70	53	71	55	50
<70	47	29	45	50
Ma				
≥70	42	29	45	50
<70	58	71	55	50

Table 4). Since the MMPI cutoff score for the frequency score distributions was equivalent to two standard deviations above the mean, frequency score distributions on the Rorschach were recomputed using cutoff scores two standard deviations above the mean scores of the normative group to provide data comparable to that on the MMPI. Using these cutoffs, two scoring indices accurately identified a majority of subjects in one or both offense groups (see Table 4). White Space identified over 50% of the violent and nonviolent subjects, while Lambda identified over 50% of the violent subjects only. Overall, the identification rates on the Rorschach tended to be higher for violent than nonviolent subjects.

To determine whether there were significant differences between the mean scores of the violent and nonviolent offense groups on the MMPI and the Rorschach, two tail *t* tests were performed. No significant differences were found between the mean scores of the two offense groups on the standard scales of the MMPI (see Tables 5 and 6). A single significant difference emerged between the violent and nonviolent offense groups on the Rorschach, occuring on the Egocentricity Index (see Table 7). Nonviolent subjects obtained significantly higher scores than violent subjects on this index. Thus, the mean scores of the violent and nonviolent offense groups were similar on nearly all MMPI and Rorschach scorings.

Stepwise discriminant function analyses were then performed to determine which scorings on the MMPI and the Rorschach best discriminated between the two offense groups. On the MMPI, there were no standard scales which contributed significantly to the discriminant function equation for the offense groups. The Rorschach generated two scoring indices which did contribute significantly to the discriminant function equation for

Table 4

Percentage Distributions of Raw Scores on Selected Indices of the Exner Comprehensive System of the Rorschach for the Offense Groups

Scoring Index	Group			
	Violent Youths (n=26)		Nonviolent Youths (n=13)	
	Cutoff Scores		Cutoff Scores	
	M %	M+2SDs %	M %	M+2SDS %
R				
≥M	12	8	8	0
<M	88	92	92	100
Location				
W				
≥M	27	8	38	8
<M	73	92	62	92
D				
≥M	19	8	8	0
<M	81	92	92	100
Dd				
≥M	54	23	38	23
<M	46	77	62	77
S				
≥M	62	61	62	61
<M	38	39	38	39
Determinants				
M				
≥M	12	4	23	0
<M	88	96	77	100
FM + M				
≥M	38	4	38	15
<M	62	96	62	85
FC				
≥M	23	0	38	8
<M	77	100	62	92
CF + C + Cn				
≥M	23	0	8	0
<M	77	100	92	100
Weighted Sum C				
≥M	27	0	15	0
<M	73	100	85	100
Sum all Shading				
≥M	15	4	15	0
<M	85	96	85	100

Table 4 (Continued)

Scoring Index	Violent Youths (n=26)		Nonviolent Youths (n=13)	
	Cutoff Scores		Cutoff Scores	
	M %	M+2SDs %	M %	M+2SDs %
(2)				
≥M	23	8	15	0
<M	77	92	85	100
F				
≥M	50	15	23	15
<M	50	85	77	85
Ratios and Derivations				
P				
≥M	19	0	15	0
<M	81	100	85	100
Lambda				
≥M	77	69	62	39
<M	23	31	38	61
X + %				
≥M	19	0	0	0
<M	81	100	100	100
F + %				
≥M	15	4	8	0
<M	85	96	92	100
A%				
≥M	81	35	69	31
<M	19	65	31	69
Afr				
≥M	4	4	15	0
<M	96	96	85	100
3r + (2)/R				
≥M	27	12	54	23
<M	73	88	46	77
H + Hd				
≥M	31	19	31	0
<M	69	81	69	100
Zf				
≥M	31	8	31	15
<M	69	92	69	85
Blends				
≥M	12	0	8	0
<M	88	100	92	100

Table 5

Differences Between Male Offense Groups on MMPI Scales (with K Correction)

Scale	Violent (n=19)		Nonviolent (n=11)		t Value (df=28)	Significance Level
	M	SD	M	SD		
L	54.21	10.64	51.82	10.42	.60	.55
F	70.42	12.89	75.27	19.29	-.83	.42
K	51.37	7.24	51.09	8.77	.09	.93
Hs	61.63	11.99	62.00	11.81	-.08	.94
D	64.53	9.77	65.18	10.43	-.02	.86
Hy	61.37	8.82	58.18	12.59	.81	.42
Pd	75.16	14.14	73.55	7.75	.35	.73
Mf	54.16	7.03	55.91	7.71	-.63	.53
Pa	64.95	12.89	65.55	16.13	-.11	.91
Pt	63.26	11.34	66.27	15.15	-.62	.54
Sc	73.90	15.99	77.73	18.49	-.60	.55
Ma	64.05	12.80	66.18	13.12	-.44	.67
Si	55.63	9.74	56.82	6.54	-.36	.72

Table 6

Differences Between Female Offense Groups on MMPI Scales (with K Correction)

Scale	Violent (n=7)		Nonviolent (n=2)		t Value (df=7)	Significance Level
	M	SD	M	SD		
L	55.86	7.49	44.50	2.12	2.03	.08
F	69.29	8.14	67.00	1.41	.38	.72
K	56.57	8.77	46.00	2.83	1.61	.15
Hs	59.14	9.30	60.00	8.49	-.12	.91
D	62.43	10.92	55.00	---	---	---
Hy	55.71	10.58	56.50	10.61	-.09	.93
Pd	70.29	12.43	66.50	13.44	.38	.72
Mf	61.43	8.06	59.50	23.34	.21	.84
Pa	67.14	9.70	66.00	1.41	.16	.88
Pt	60.71	8.38	64.50	13.44	-.51	.63
Sc	72.86	11.84	68.00	18.39	.47	.65
Ma	63.00	13.78	74.50	23.34	-.92	.39
Si	56.86	5.76	58.50	7.78	-.34	.75

Table 7

Differences Between Offense Groups on Selected Indices of the Exner Comprehensive System of the Rorschach

Scale	Violent Youths (n=26)		Nonviolent Youths (n=13)		t Value (df=37)	Significance Level
	M	SD	M	SD		
R	16.77	7.79	14.46	4.54	.98	.33
Location						
W	6.54	4.18	7.38	4.46	-.58	.56
D	8.23	6.77	5.77	3.19	1.24	.22
Dd	2.00	2.53	1.31	1.60	.90	.38
S	1.23	1.27	1.08	1.26	.36	.72
Determinants						
M	1.42	1.39	1.23	1.24	.42	.68
FM + m	2.08	1.74	3.08	2.75	-1.39	.17
FC	.81	.09	1.23	1.30	-1.14	.26
CF + C + Cn	.77	.99	.54	.66	.76	.45
Weighted Sum C	1.35	1.35	1.23	1.30	.25	.80
Sum all Shading	.81	1.67	.69	.95	.31	.76
(2)	4.35	3.83	3.77	2.39	.50	.62
F	11.42	6.65	8.62	4.09	1.39	.17
Ratios and Derivations						
P	4.00	1.77	3.92	2.02	.12	.90
Lambda	2.43	2.35	1.21	1.25	1.74	.09
X + %	.68	.15	.61	.15	1.32	.19
F + %	.64	.18	.57	.21	1.17	.25
A%	.58	.22	.56	.23	.33	.75
Afr	.49	.20	.50	.18	-.22	.82
3r + (2)/R	.30	.21	.46	.18	-2.39	.02*
H + Hd	3.27	2.91	2.92	1.93	.39	.70
Zf	7.92	4.39	9.31	4.99	-.89	.38
Blends	.88	1.03	1.23	1.01	-.99	.33

*$p \leq .05$

the offense groups, namely, the Egocentricity index and X+% (see Table 8). The offense group membership of 72% of the study subjects was correctly identified by this equation. When the MMPI and the Rorschach were treated as joint predictors in the discriminant function analyses, two significantly discriminating indices emerged for males, the Egocentricity Index and X+% (see Table 9), and six scoring indices for females--Sum of Shading, Animal Movement (FM), Color (Weighted Sum C), Form Color (FC), Blend responses and Whole responses (W) (see Table 12). These discriminant function equations were 80% and 100% accurate in identifying the offense group membership of the original male and female subjects respectively. Overall, the Rorschach made a larger contribution than the MMPI to the discriminant function equations for the offense groups.

Discussion

Several conclusions can be drawn from this research. In general, the degree of psychopathology present in the sample was low, though a few subjects did demonstrate significant emotional disturbance. Moreover, the nature and degree of psychopathology among study subjects was similar on the two tests. The MMPI profiles of these juveniles revealed some evidence of psychopathic deviance as expected in a delinquent population. Additionally, there was evidence of unconventional thinking and perception, restricted social contacts, and defensiveness. However, there was no significant difference between the MMPI profiles of violent and non-violent subjects. The Rorschach records of study subjects indicated the presence of defensiveness, emotional constriction, concrete thinking, unconventional perceptions and limited interpersonal relationships.

Table 8

Discriminant Function Summary for the Offense Groups Using Rorschach Scores

Step Number	Scoring Index Variable	F	Significance
1	Egocentricity Index (3r + (2)/R)	5.69	.02
2	X + %	5.24	.03

Table 9

Discriminant Function Summary for the Male Offense Groups Using MMPI and Rorschach Scores

Step Number	Scoring Index Variable	F	Significance
1	Egocentricity Index (3r + (2)/R)	5.53	.03
2	X + %	6.80	.01

Table 10

Discriminant Function Summary for the Female Offense Groups Using MMPI and Rorschach Scores

Step Number	Scoring Index Variable	F	Significance
1	Blends	11.09	.01
2	Sum all Shading	20.01	.004
3	Animal Movement (FM)	10.76	.02
4	Color (Weighted Sum C)	29.75	.01
5	Whole Responses (W)	13.30	.04
6	Form Color (FC)	137.02	.01

The only significant difference in Rorschach records between violent and nonviolent subjects emerged on a measure of egocentricity, with violent subjects demonstrating less self-centeredness than nonviolent subjects. While these findings indicate that the Rorschach was slightly more effective than the MMPI in discriminating among this sample of juvenile offenders, the Rorschach was favored over the MMPI because it has a larger number of scorings and because its subject group was larger since it was not divided by sex for statistical analyses. In summary, both the MMPI and the Rorschach were largely unsuccessful in distinguishing between violent and nonviolent juvenile offenders.

The findings of this study provide partial support for prior research on juvenile offenders. In this study, juvenile offenders obtained peak MMPI scale scores on Pd, and Sc as in many previous studies, though unlike some work on violent and nonviolent juvenile offenders, the Pd and Sc scales did not discriminate between these groups. On the Rorschach, study subjects had relatively low frequencies of Human Movement and Human Content responses as in past studies of juvenile offenders; however, these scoring indices did not differentiate violent from nonviolent juvenile offenders as they had in other research. The frequency of Color responses, though, was not elevated in this sample; in fact, it was relatively low. Additionally, Color did not discriminate between violent and nonviolent juvenile offenders. Previous research which had found high frequencies of Color Responses among juvenile offenders and had found that the frequency of Color responses distinguished between violent and nonviolent juveniles was not supported here. It should be noted that the low frequencies of these three Rorschach scoring indices as well as others was undoubtedly in-

fluenced by subjects' low response number.

The results, then, from this research should not be overgeneralized. In this study, the sample was small and the number of statistical analyses performed was large; consequently, the few significant findings that did emerge may not represent true group differences but may instead have been generated by chance. In addition, the FBI classification index of violent crimes, while providing information of legal significance, offers only a gross dichotomy of violent and nonviolent crimes and, therefore, was of limited psychological utility. A behavioral measure which assesses the degree of violence in a specific offense episode would have given data of greater psychological meaning.

In conclusion, this research found that neither the MMPI nor the Rorschach was highly effective in differentiating between violent and nonviolent juvenile offenders. However, the two measures provided similar data on the nature and degree of psychopathology present in the sample despite their vast divergence in psychometric approaches. Replication of this study is needed to confirm these findings. Such research would benefit from a larger sample and a more psychologically appropriate measure of violence. While it would be difficult, if not impossible, to obtain a very large sample due to the low base rate of serious juvenile offenses, collection of uniform data on this population across settings would minimize this obstacle (Hunter, Note 2). Research on violent juvenile offenders, while complex, may produce data with important implications for our society and therefore is worthy of psychologists' attention.

Reference Notes

1. Exner, J.E., Bryant, E. L., & Miller, A. S. Rorschach responses of juvenile offenders (Workshops Study No. 214). Unpublished manuscript, Rorschach Workshops, 1975.

2. Hunter, J.E. Cumulating results across studies: Correction for sampling error, a proposed moratorium on the significance test and a critique of current multivariate reporting practice. Invited address presented at the annual meeting of the American Psychological Association, New York, September, 1979.

References

Exner, J. E. The Rorschach: A comprehensive system. New York: Wiley, 1974.

Goldstein, J. Aggression and crimes of violence. New York: Oxford University, 1976.

Hathaway, S.R. & Monachesi, E.D. (Eds.). Analyzing and predicting juvenile delinquency with the MMPI. Minneapolis: University of Minnesota, 1953.

Lothstein, L.M. & Jones, P. Discriminating violent individuals by means of various psychological tests. Journal of Personality Assessment, 1978, 42, 237-243.

McGrath, J. H. A comparative study of adolescent drug users, assaulters, and auto thieves (Doctoral dissertation, Rutgers State University, 1967), Dissertation Abstracts International, 1968, 28. 4290A.

Megargee, E.I. Undercontrolled and overcontrolled personality types in extreme antisocial aggression. Psychological Monographs, 1966, 80, 1-29.

Offer, D., Marohn, R.C., & Ostrov, E. The psychological world of the delinquent. New York: Basic Books, 1979.

Shinohara, M. & Jenkins, R. L. MMPI study of three types of delinquents. Journal of Clinical Psychology, 1967, 23, 156-163.

Solway, K.S., Richardson, L.M., Hays, J. R., & Elion, V. H. Adolescent murderers: Literature review and preliminary research findings. In J.R. Hays, T.K. Roberts & K.S. Solway (Eds.), Violence and the violent individual. New York: Spectrum, 1981.

Spellacy, F. Neuropsychological differences between violent and non-violent adolescents. Journal of Clinical Psychology, 1977, 33, 966-969.

Townsend, J. K. The relation between Rorschach signs of aggression and behavioral aggression in emotionally disturbed boys. Journal of Projective Techniques and Personality Assessment, 1968, 31, 13-21.

Tsubouchi, K. & Jenkins, R. L. Three types of delinquents: Their performance on MMPI and PCR. Journal of Clinical Psychology, 1969, 25, 353-358.